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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/812,106

03/29/2004

Robert K Prud'homme

2004-IP-013477

1509

7590

06/07/2006

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EXAMINER

ZIMMER, MARC S

ART UNIT

PAPER NUMBER

1712

DATE MAILED: 06/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/812,106	PRUD'HOMME ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Marc S. Zimmer	1712	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 April 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 54-84 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 54-62, 67-74 and 76-82 is/are rejected.
- 7) ☒ Claim(s) 63-66, 83 and 84 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 54-58, 60, and 67-71 are rejected under 35 U.S.C. 102(b) as being anticipated by the article entitled "Polymer Vesicles" authored by Discher et al. and published in *Science* (2002), v. 297, pp 967-972 for the reasons cited in the previous correspondence.

Claims 54-58, 60, and 67-71 are rejected under 35 U.S.C. 102(b) as being anticipated by the article entitled "Hyperviscous Diblock Copolymer Vesicles" authored by Dimova et al. and published in *Eur Phys. J.* (2002) 7, 241-250 for the reasons cited in the previous correspondence.

Claims 54-62 and 67-74 are rejected under 35 U.S.C. 102(b) as being anticipated by Discher et al., U.S. Patent # 6,835,394 for the reasons cited in the previous correspondence.

The essence of Applicant's argument is that, because these references fail to expressly disclose the employment of the polymersomes set forth therein as additives for drilling/well treating applications, not all of the claim limitations are satisfied and, hence, these rejections should be withdrawn. The present Examiner respectfully disagrees.

That Applicant refers to their invention as a “viscosified subterranean treatment fluid” does not make the claims patentable over the art of record for the simple fact that the phrase “subterranean treatment” is, in fact, merely a recitation of intended use as in *a viscosified liquid for treating subterranean (formations)*.

Section 2112.02 of the MPEP provides direction as to how phrases such as this are to be treated: “If the body of a claim fully and intrinsically sets forth all of the limitations of the claimed invention, and the preamble merely states, for example, the purpose or intended use of the invention, rather than any distinct definition of any of the claimed invention’s limitations, then the preamble is not considered a limitation and is of no significance to claim construction. *Pitney Bowes, Inc. v. Hewlett-Packard Co.*, 182 F.3d 1298, 1305, 51 USPQ2d 1161, 1165 (Fed. Cir. 1999). See also *Rowe v. Dror*, 112 F.3d 473, 478, 42 USPQ2d 1550, 1553 (Fed. Cir. 1997) (“where a patentee defines a structurally complete invention in the claim body and uses the preamble only to state a purpose or intended use for the invention, the preamble is not a claim limitation”); *Kropa v. Robie*, 187 F.2d at 152, 88 USPQ2d at 480-81 (preamble is not a limitation where claim is directed to a product and the preamble merely recites a property inherent in an old product defined by the remainder of the claim).

Clearly, the aforementioned phrase does not in any way help to define the invention as it is set out in the body of the claim. The body of the claim represents a structurally complete invention comprising a polymersome. (Applicant’s mention of an aqueous component is almost redundant insofar as water seems to be the solvent directing medium of choice in all of the prior art documents teaching polymersome

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formation.) Moreover, insofar as references describe amphiphilic polymers equivalent to those contemplated by Applicant, it is reasonable to expect that they would inherently increase the viscosity of the medium in which they are formed unless, of course, some minimum critical polymersome concentration were required for increased viscosity to be realized in which case the Examiner would have to revisit at least those references not anticipating claim 59.

Claims 54-61, 67-73 and 76-82 are rejected under 35 U.S.C. 102(b) as being anticipated by Heitz et al., U.S. Patent Application Publication No. 2002/0161087.

As the present Examiner understands the phenomena dictating the structure of amphiphilic molecules in aqueous media, two biggest considerations are (i) the relative weight contributions of the hydrophilic and hydrophobic portions and (ii) there has to be some minimum critical concentration of the polymer material in water that corresponds to the critical micelle concentration. That is to say, micelles and polymersomes are formed under the same concentration conditions, their relative quantities being influenced by other conditions such as condition (i). In this connection it is emphasized that the reference broadly contemplates polymers having a hydrophilic polymer block weight contribution (and, hence, a hydrophobic polymer weight block contribution) that is within the limits mandated by claim 56. Further, the concentration of said polymer is at least as high as, or higher than that recited in claim 59. It is also significant that the predominantly hydrophobic block and the water-soluble block are derived from the same monomers as those making up the hydrophobic block and hydrophilic block of the

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claimed polymersome. Taken together, these facts represent, in the Examiner's estimation, precisely the sort of extrinsic evidence that Applicant alleged to be lacking.

Section 2112.01 of the MPEP emphasizes that, "When the PTO shows a sound basis for believing that the products of the applicant and the prior art are the same, the applicant has the burden of showing that they are not." *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990). "Whether the rejection is based on inherency' under 35 U.S.C. 102, on prima facie obviousness' under 35 U.S.C. 103, jointly or alternatively, the burden of proof is the same...[footnote omitted]." The burden of proof is similar to that required with respect to product-by-process claims. *In re Fitzgerald*, 619 F. 2d 67, 70, 205 USPQ 594, 596 (CCPA 1980) (quoting *In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430, 433-34 (CCPA 1977)). However, "A prima facie case can be rebutted by evidence showing that the prior art products do not necessarily possess the characteristics of the claimed product." *In re Best*, 562 F.2d at 1255, 195 USPQ at 433.

It is Applicant's contention that a micelle structure can perhaps be said to be the default orientation for amphiphilic polymer molecules in an aqueous solution. The arguments of counsel cannot take the place of evidence in the record. *In re Schulze*, 346 F.2d 600, 602, 145 USPQ 716, 718 (CCPA 1965). Examples of attorney statements which are not evidence and which must be supported by an appropriate affidavit or declaration include statements regarding unexpected results, commercial success, solution of a long-felt need, inoperability of the prior art, invention before the date of the reference, and allegations that the author(s) of the prior art derived the disclosed subject matter from the applicant. The Examiner has taken a reasonable

position based on scientific principals that the composition taught by Heitz et al. inherently comprises polymersomes, possibly in admixture with micelles of the same polymer. The burden now shifts to Applicant to illustrate that this limitations is not necessarily inherent in the prior art composition.

***Claim Rejections - 35 USC § 103***

The present Examiner agrees that the rejection formulated under 35 U.S.C. 103 in the previous correspondence is invalid, but not for the reasons furnished by Applicant. In the present Examiner's opinion, Discher is not properly combinable with the others to arrive at the claimed invention. It appears that this combination had been cited specifically as a means of rejecting claims 83 and 84 as there had been a statement indicating that all of the claims mentioned in the statement of rejection were rejectable over Discher alone except for those contemplating the incorporation of a pH adjusting agent. The other references are invoked ostensibly to establish a motivation to add said pH adjusting agents to Discher but fail to do so. If anything they establish only that these agents could be encapsulated in the vesicles taught by Discher but there appears not to be a specific motivation to do so. Discher considers enclosing various materials in their polymersomes (column 5, lines 46-53) however pH adjusting agents are not among them.

***Allowable Subject Matter***

Claims 63-66 and 83-84 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

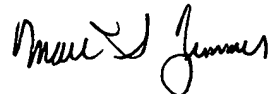
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marc S. Zimmer whose telephone number is 571-272-1096. The examiner can normally be reached on Monday-Friday 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on 571-272-1302. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

June 5, 2006



**MARC S. ZIMMER**  
**PRIMARY EXAMINER**